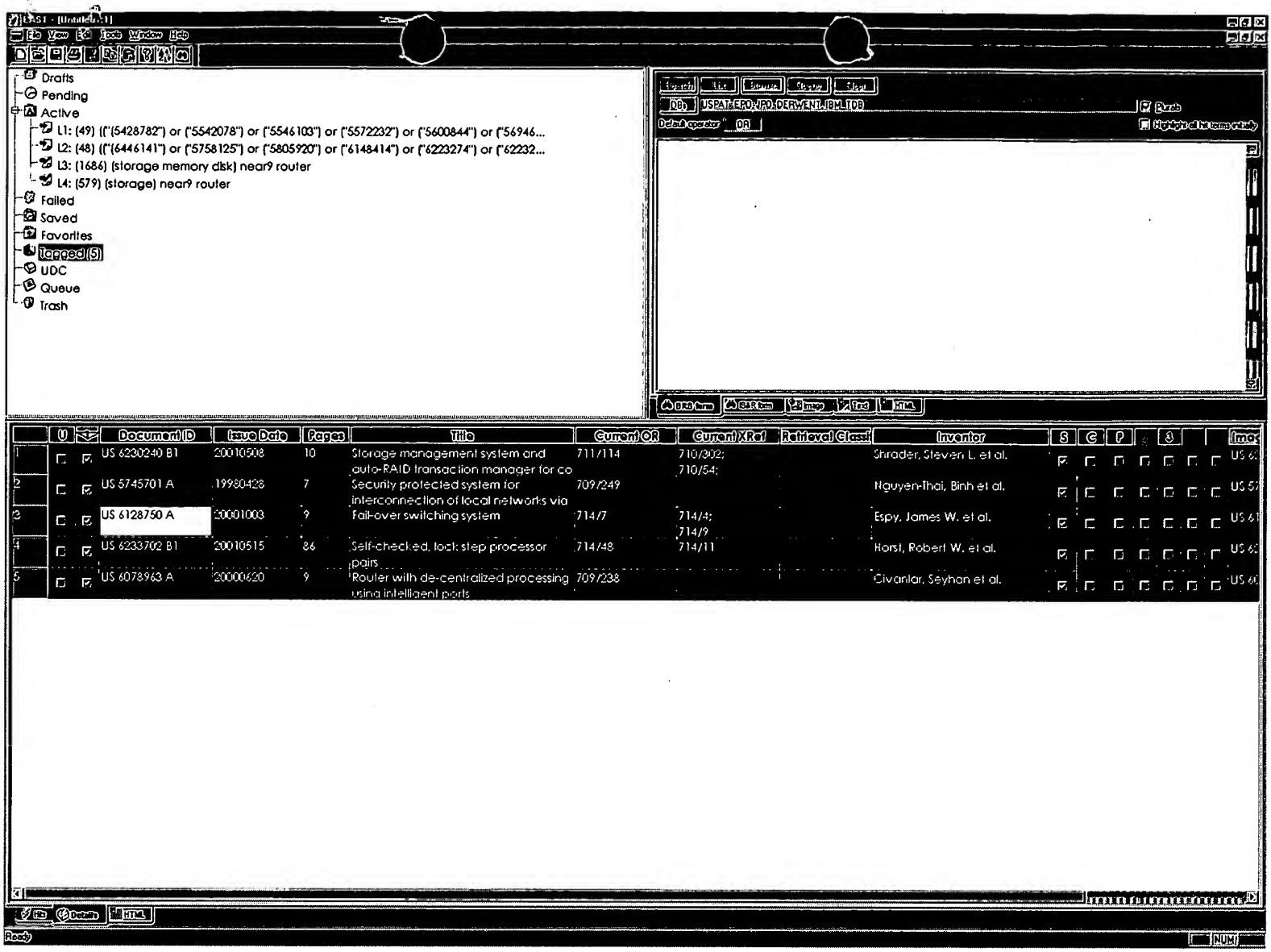


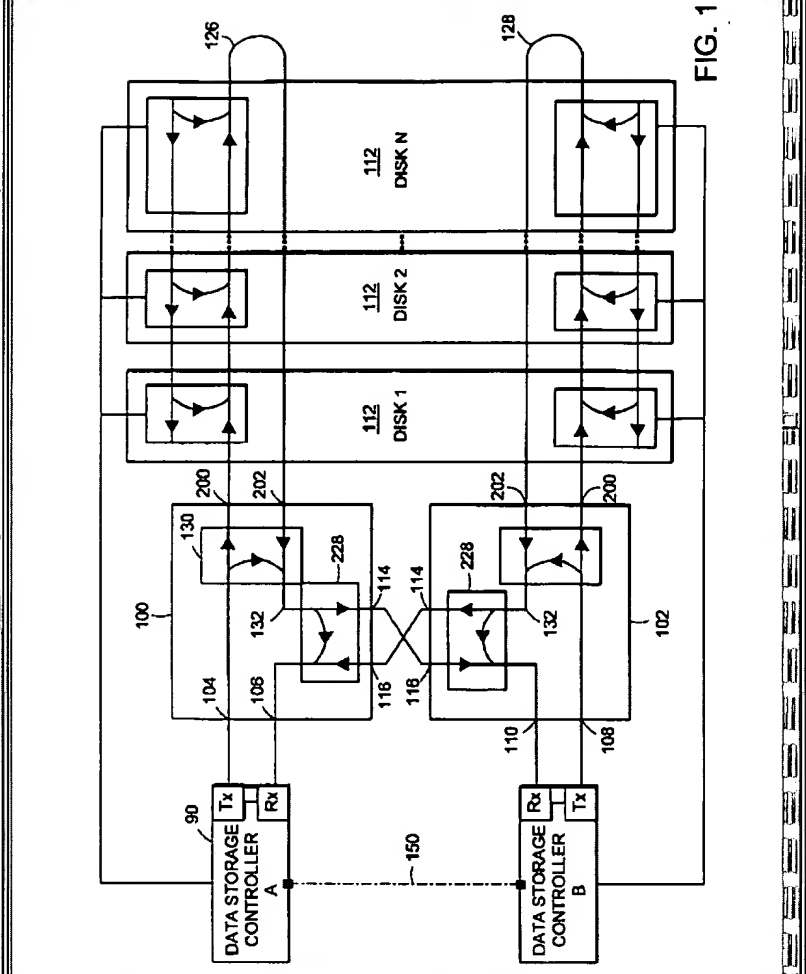


FIG. 1

US-PAT-NO: 6128750

DOCUMENT-IDENTIFIER: US 6128750 A

TITLE: Fail-over switching system

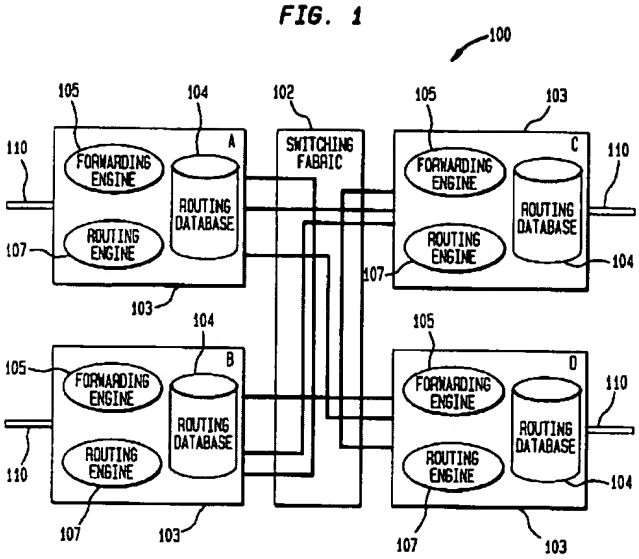
---------- KWIC ----------

Brief Summary Text - BSTX (10):

In a further embodiment, there are two fail-over switches, each in communication with one of the communication paths, as well as with each other. Preferably each switch has an incoming and outgoing port, and the first and the second communication paths are configured as loops that begin and end with these ports of the first and second fail-over switches. There are also two data storage controllers, one connected to each of the fail-over switches, where all data requests for a particular path would be made through the data storage controller attached to that path. Preferably, communications between the controllers and the switches would be over two serial pathways, where the first serial pathway is connected to an incoming terminal, and the second serial pathway is connected to an outgoing terminal. In this preferred embodiment, the first and second fail-over switches are connected so that a data request may be selectively routed through the first fail-over switch over the first communication path, or through the first and second fail-over switches to the second communication path. In this embodiment, the data storage controllers also function as routers so as to connect the outgoing terminal of the second switch to the incoming terminal of the second switch and loop data received from the first switch back to the second switch's transmission terminal. Similarly, responses to the forwarded request may be routed back to the first switch's outgoing terminal when received from the second communication path.

	U	1	Document I	Issue Dat	Pa	Current O	Current XR	Tit
13			US 6507854	2003011	8	715/501.1	707/203;	Enhanced netwo
14			US 6571354	2003052	31	714/7		Method and app
15			US 6128750	2000100	9	714/7	714/4;	Fail-over switchi
16			US 5922077	1999071	11	714/7	714/4	Fail-over switchi
17			US 5475838	1995121	47	714/57	706/50;	Extensible entity
18			US 6151689	2000112	81	714/49	714/18;	Detecting and is
19			US 6233702	2001051	86	714/48	714/11	Self-checked, lo
20			US 6330693	2001121	21	714/42		Method and app

FIG. 1



US-PAT-NO: 6078963

DOCUMENT-IDENTIFIER: US 6078963 A

TITLE: Router with de-centralized processing using intelligent ports

-------- KWIC --------

Detailed Description Text - DETX (21):

Referring to FIG. 4, an intelligent router port 103 (e.g., intelligent router port A) may forward a data packet by first receiving the data packet from another network node such as another router via the external interface 201 (step 400). The external interface 201 may perform Layers 1 and/or 2 processing on the data packet. As discussed above, the search for a routing table entry may be distributed amoung the cache look-up engine 210 and first level cache 209, the routing table look-up engine 210, and/or the control processor/memory 200 (step 405). Where the entry exists in the first level cache 209, the data packet may be routed directly from the external interface 201 to the internal interface 202 (step 425). Where the entry does not exist in the first level cache, the data packet addressing information may be forwarded to the routing table look-up engine 210 (Step 420) for searching of the second level cache 203 and/or the routing table data storage 222. In exemplary embodiments, the packet may remain in buffer 212 while the header information is processed by either the cache look-up engine 210 and/or the routing table look-up engine 210. Where the packet remains in the buffer, the packet is transferred to the internal interface 202 along with the control information from the routing table necessary to route the packet to the appropriate intelligent router port 103 in the switching fabric. Upon finding a matching address, the routing data may be forwarded directly to the internal interface 202 and/or back to the buffer in the external interface 201 to label the data packet with an identifier to inform the switching fabric via the internal interface 202 of the best outgoing intelligent router port 103. The data packet may be sent to the switching fabric 102 via the internal interface 202 (step 425). A buffer may be disposed in the internal interface 202. The buffer may be logically organized to have different storage areas for each

	U	1	Document I	Issue Dat	Pa	Current O	Current XR	Tit
113			US 6189043	2001021	25	709/241	370/254;	Dynamic cache
114			US 5600794	1997020	12	709/241	370/351;	Method and app
115			US 6438606	2002082	14	709/238	707/10	Router image su
116			US 6351775	2002022	26	709/238	370/237;	Loading balanci
117			US 6345304	2002020	16	709/238	709/219;	Obtaining netwo
118			US 6324584	2001112	10	709/238	709/217	Method for intelli
119			US 6304912	2001101	96	709/238	370/351;	Process and ap
120			US 6078963	2000062	9	709/238		Router with de-c